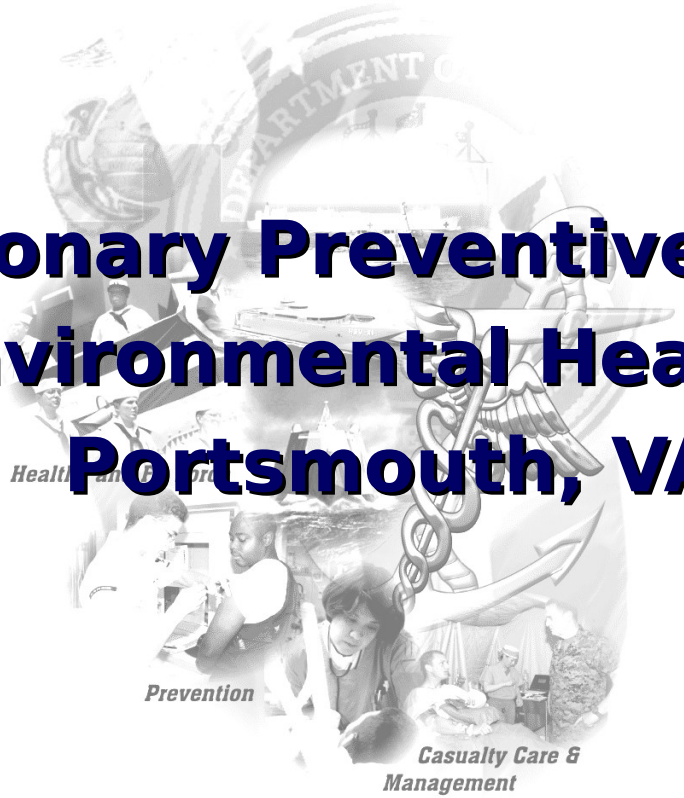
# Expeditionary Preventive Medicine
# Navy Environmental Health Center
# Portsmouth, VA

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# FDPMU Primary Mission ....

***"To enhance Force Health Protection by anticipating and rapidly assessing, preventing, and reducing or controlling health threats in a theater of operations by characterizing those health threats and focusing the efforts of other organic Preventive Medicine assets to reduce or mitigate the hazards."***

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# Meets CNO's Guidance ....

***"Evolve medical capabilities as a Defensive Weapons System to deliver enhanced medical surveillance, detection, and protection"***

***"Study and recommend improvements in our ability to detect, protect against, and respond to lethal and non-lethal chemical and biological agents. Include specific recommendations for both afloat units and shore installations"***

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# The FDPMU Supports….

**Deployed FHP (USC 10 Chap 55 & DODI 6490.3) and the J-4 Publication**

- Provides comprehensive, continuous health surveillance for deployed forces
  - Collects environmental samples
  - Analyzes environmental samples
  - Records environmental conditions
- Disseminates Prev Med knowledge during and post- deployment
  - Sustains forces
  - Prepares for future deployments
- Deploys state-of-the-art technology forward to detect and report capabilities that enhances battle field decision superiority - addresses
  - Environmental contaminants
  - Chem/bio agents
  - Disease vectors
- Identifies potential threats, develops courses of action, and advises combat commanders of risk and threat countermeasures

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# What is the FDPMU ….

- **Joint service asset**
- **Specialized preventive medicine support to forward deployed U.S. forces and JTF Commanders**
- **Mobile, agile, rapidly deployable with state-of-the-art detection and diagnostic equipment yields *real-time analytical capabilities***
  - Small Footprint
  - Self-sustaining consumables for up to 60-days
- **Flexibility to task organize to meet any contingency from small-scale humanitarian support to major theater war**
- **Adaptable to operate from fixed or mobile land bases to maritime platforms**
- **Requires BOS and C⁴ integration with in-theater operations**

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# FDPMU Evolution ….

- **MMART → 1970's-1999**
  - Involved basic Preventive Medicine and Vector Control
- **FDL (Forward Deployable Lab) → 1990-1998**
  - Microbiology Lab (designed in response to Gulf War)
- **PM-MMART (Preventive Medicine – Mobile Medical Augmentation Readiness Team) → 2000-2003**
  - Enhanced Deployment Medical Surveillance functions and Prev Med deployment teams - - 6 teams
- **FDPMU → 2004 and beyond**
  - Navy's Operational Disease Medical Surveillance Platform
  - Anticipate official validation and funding in FY05

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# How The FDPMU Deploys….

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# Recent Deployments….

- **OIF Detainee Operations –** *4 teams from Jan 02 - May 04*
- **OIF I –** *3 teams from Feb - Jun 03 (Support to NAVCENT and MARCENT)*
- **OIF II –** *4 teams from Jan-Nov 04 (Support to CJTF-7, MNC-I, I MEF)*
- **Hurricane Ivan Disaster Relief –** *Deployed team in Sept 04 (Support to NAVSTA Pensacola)*
- **Haiti –** *Deployed team from Mar-Jun 04 (Support to JTF)*
- **OIF 04-06 –** *4 teams from Dec 04 - Jan 06 (Support to MNF-I and CFLCC)*
- **Tsunami Relief Effort –** *Deployed 31 member task-organized Prev Med Team in Jan - May 05 (Support to CSF 536)*

***Steady State: 25-40% NEHC personnel deployed***

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# Force Health Protection Efforts…..

## Capabilities Offered

- Conducts medical and disease vector surveillance operations
- Provides endemic, infectious disease assessment
- Supports First Responders with on-site and deep reach back analytical, consultative capabilities
- Provides rapid detection of CBR, or environmental hazards - minimize casualty flow
- Provides realistic

## Operational Risk Communication Expertise

- Communicates health threats to theater commanders and surgeons – other field personnel
- Assesses hazards, evaluate risk management options, provide recommendations for controls or threat reduction
- Connects Risk Com to existing Operational Risk Management Plans

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# Where The FDPMU Fits….

**Joint Environment**

- Provides unique capability for the Theater Commander
- Contribute to overall FHP effort
- Operational Risk Assessment & countermeasure recommendations

**CONUS**

- Provide emergent CBR detection, assessment and countermeasure recommendations for DoD forces
- Assist federal, state and local authorities IAW Presidential, Federal, and DoD directives
- Provide technical expertise to National Guard CSTs, DHHS DMATS, and DoD Chemical Biological Rapid Response Teams – CBRRTs

**USMC**

- Provide robust technical support of disease surveillance and control
- Provide technical expertise to:

  Security Force BNs (Force Auxiliary Support Teams – FAST)

  Enhanced Nuclear Biological and Chemical – ENBC

# Forward Deployable Preventive Medicine Unit

## The FDPMU as a U.S. Navy Asset….

### SEA STRIKE

**PREVENTIVE MEDICINE**

- Disease vector control
- Camp sanitation
- Disease outbreak investigation

**ENVIRONMENTAL HEALTH SITE ASSESSMENT**

- Identify vector, chem, bio, rad threats
- Document identified threats
- Health Risk Assessment
- Hazard mitigation

**RISK COMMUNICATION**

- Risk assessment

### SEA SHIELD

**HOMELAND SECURITY**

- Maritime interdiction support
- CBRN detection & analysis

**ASYMMETRIC THREATS TO LITTORAL CONTROL**

- CBRN detection & analysis
- Collection, reach-back expertise

**SHORE-BASED SUPPORT**

- Public Health
- Toxic chemical identification

### SEA BASING

**RAPID DEPLOYABILITY**

- Movement within a 96 hour window
- Self-sustainable for 30 days

**SEA BASED FDPMU**

- Configurable for any platform
- Expertise “just over the horizon”

**SHIPBOARD FORWARD DEPLOYABILITY**

- On-hand 24/7 for use by ground forces
- Immediate force health protection reach-back

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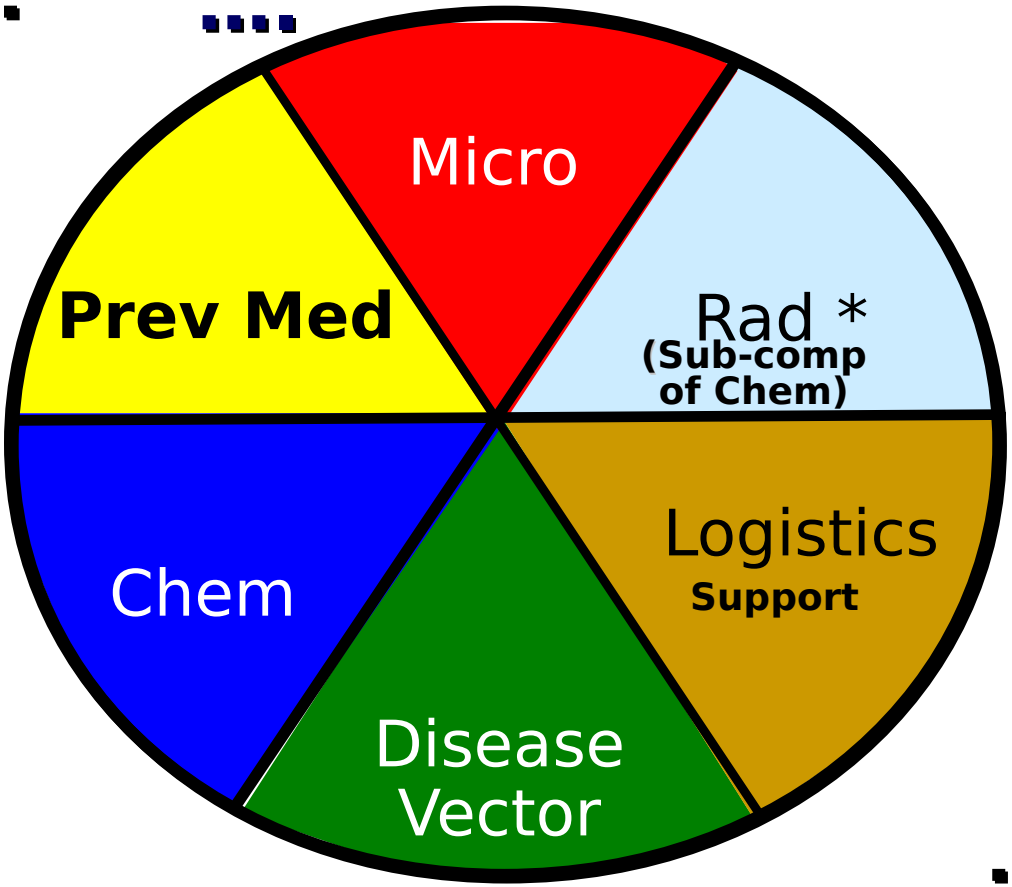
# Components – Weight and Cube




| Manning Structure | Weight | Cube |
|---|---|---|
| 1 Micro<br>1 Lab Tech<br>1 Biochem # | 3320 | 500 |
| 1 PMO<br>1 EHO<br>2 PMTs | 500 | 70 |
| 1 IHO<br>2 PMTs<br>1 Biochem # | 4470 | 530 |
| 1 Ento<br>2 PMTs | 2030 | 180 |
| 1 Gen Duty HM<br>1 PMT º | 3810 | 670 |
| 1 IHO *<br>1 RHO # | 1500 | 210 |
| 13 Total | 15,630 ** | 2160 |

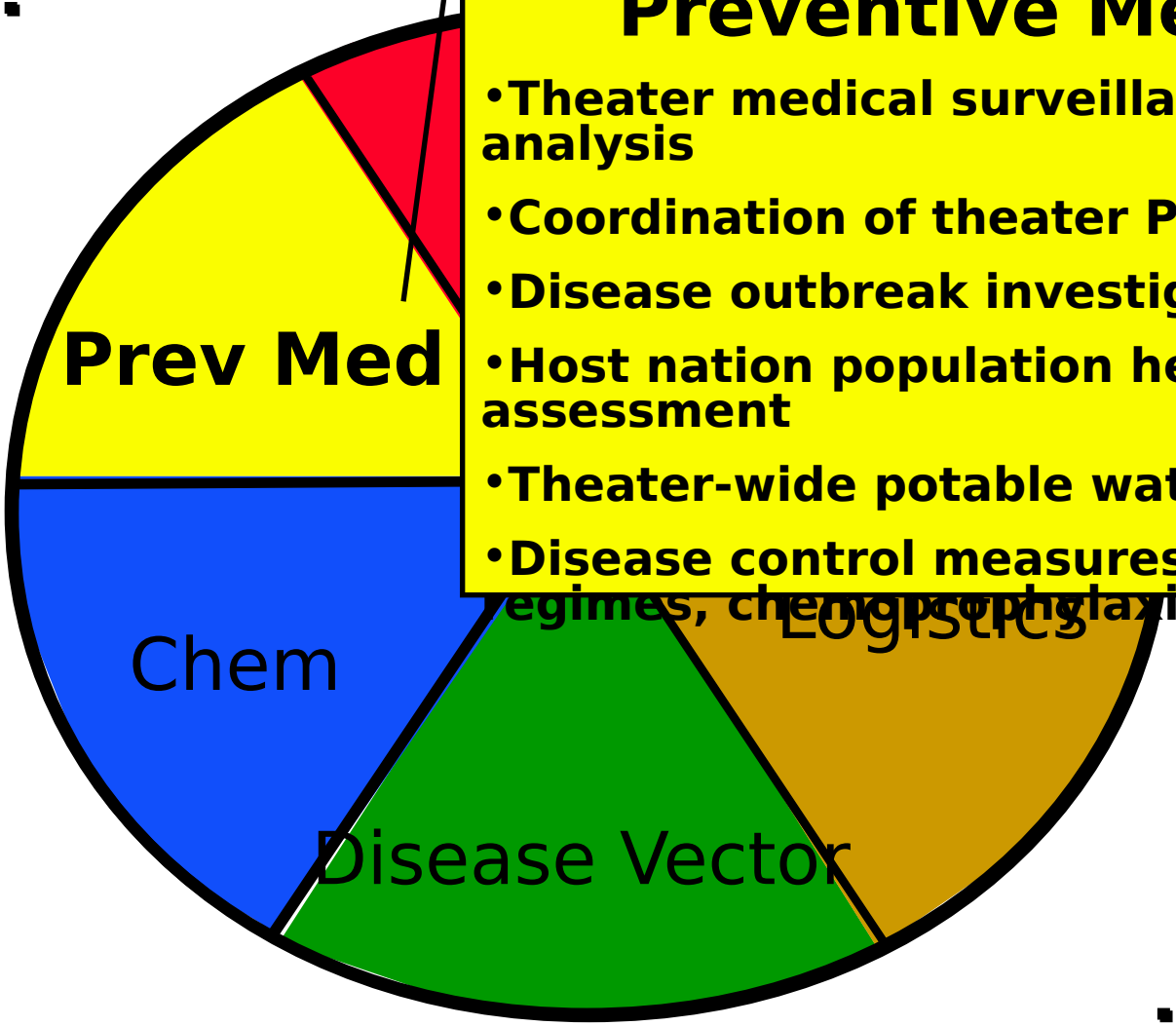
# Available as augmentees only hatted

* Chem Comp IHO dual-

º Primary assignment to DV Comp

** Does not include organic transportation

# Forward Deployable Preventive Medicine Unit




## Preventive Medicine

- Theater medical surveillance data analysis
- Coordination of theater PM assets
- Disease outbreak investigation
- Host nation population health assessment
- Theater-wide potable water consultation
- Disease control measures (treatment regimes, chemoprophylaxis

| | |
|---|---|
| Manning | - 1 PMO |
| | 1 EHO |
| | 2 PMTs |
| Weight - | 500 lbs |
| Cube - | 70 ft$^3$ |

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# Forward Deployable Preventive Medicine Unit

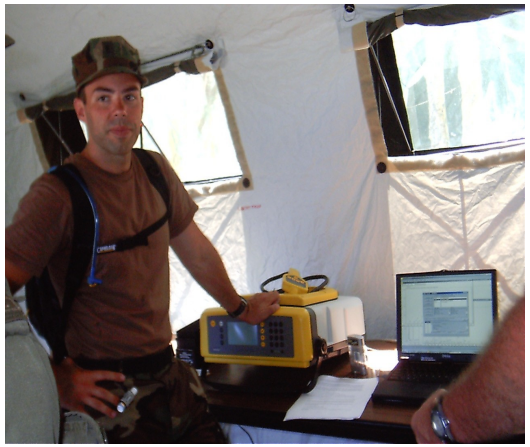
## Chemical

- CW/toxic agent detection/ID in ‘real time’ with high confidence level (nerve, blister, blood)
- TIC detection/ID in ‘real time’ with high confidence level of over 123,000 chemicals (ammonia, arsenic, chlorine, toluene, etc
- Operational risk assessment of physical and chemical risks, communication to JTF commanders on COAs and strategies
- Rapid, on-site analysis with strong ‘reach back’ capabilities

Prev

Chem

Disease Vector



| | |
|---|---|
| Manning – | 1IHO<br>2 PMTs<br>1 |
| Biochem* | |
| Weight – | 4470 lbs |
| Cube – | 530 ft³ |

* Biochem – available as augmentee or

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# Forward Deployable Preventive Medicine Unit

Chem

Disease Vector

## Disease Vector

- Surveillance for and ID of disease vectors and reservoirs
- Assessments of vector-borne disease risk
- Operations to control/minimize vectors
- Liaison and coordination of host nation support
- Training/assistance to organic personnel

| | |
|---|---|
| Manning – | 1 Ento<br>2 PMTs |
| Weight – | 2030 lbs |
| Cube – | 180 $ft^3$ |

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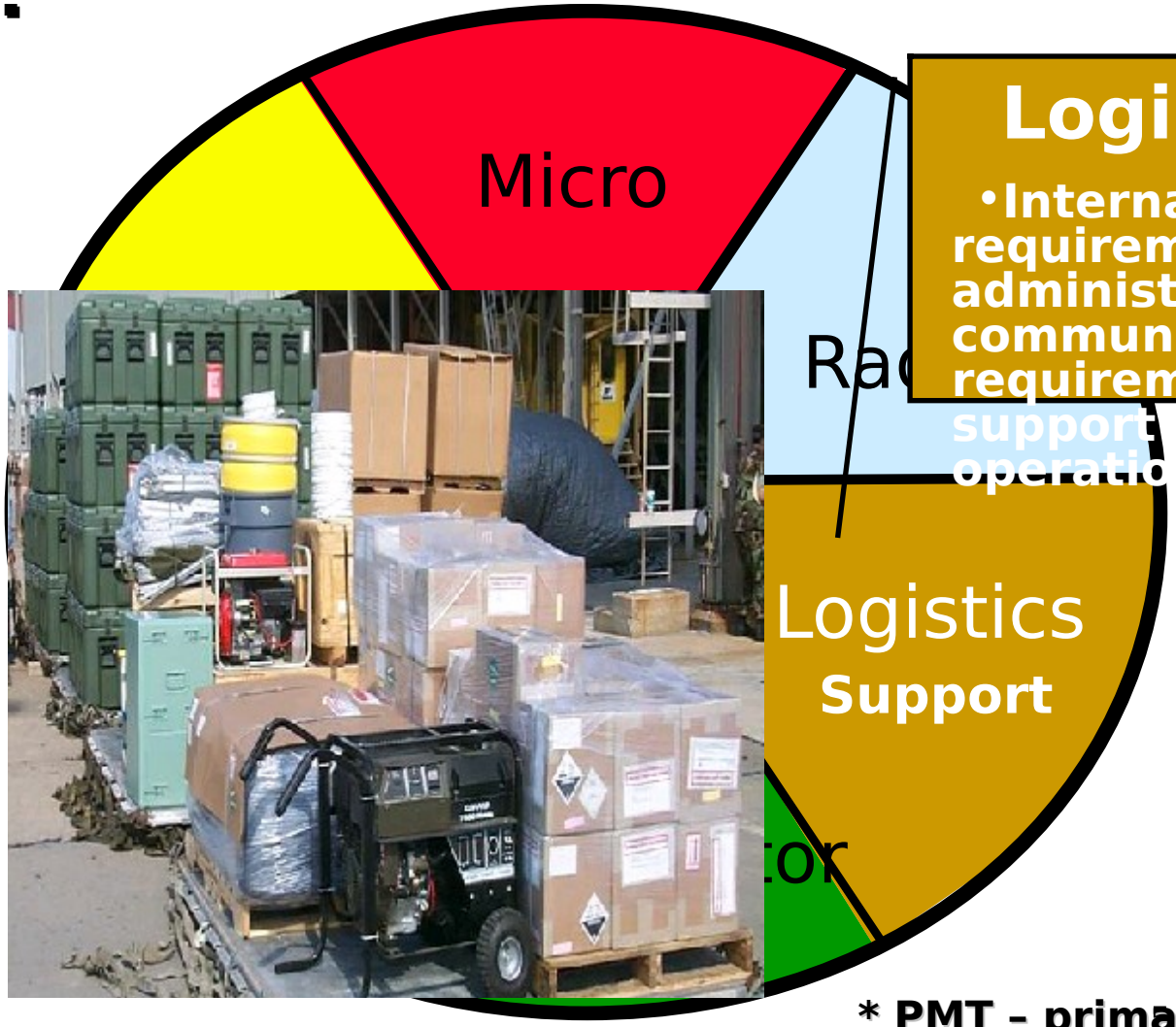
# Forward Deployable Preventive Medicine Unit




## Logistics Support

- **Internal FPMU requirements for administrative, communication, and lift requirements necessary in support operatio**



| | |
|---|---|
| **Manning – 1 Gen Duty HM** | |
| | **1 PMT *** |
| **Weight –** | **3810 lbs** |
| **Cube –** | **670 ft³** |

*** PMT – primary assignment to DV Compor**

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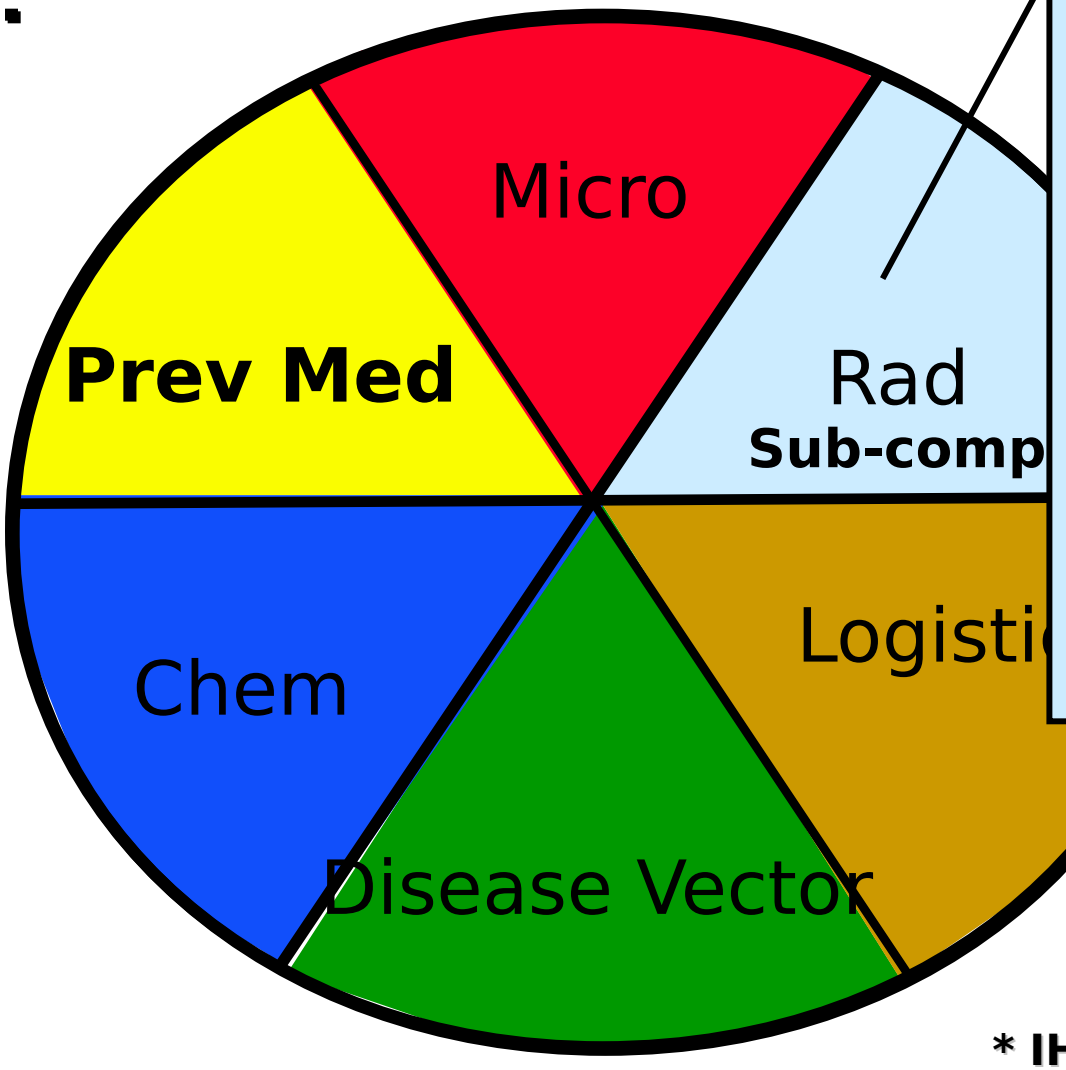
# Forward Deployable Preventive Medicine Unit




## Rad Sub-comp

- Ability to detect and quantify radioactive materials from a wide range of operational scenarios (alpha, beta, and gamma emitting isotopes)
- Advise OSC of hazard level, counter measures and COAs
- 'Real time' assessment and modeling of dispersal patterns
- Assi[illegible]d protec[illegible]

| | |
|---|---|
| Manning *– | 1 IHO<br>1 RHO # |
| Weight – lbs | 1500 |
| Cube – | 210 ft³ |

* IHO dual-hatted from Chem Component

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# Forward Deployable Preventive Medicine Unit

## Microbiology

- Detection and ID of naturally-occurring infectious disease agents and viruses in 'real time' with high confidence (malaria, dengue, diarrheal diseases)
- Detection and ID of BW agents in 'real time' with high confidence level, using state-of-the-art PCR technology, ELISA and HHAs
- Prepare samples for shipment to reference laboratories

| | |
|---|---|
| Manning – | 1 Micro |
| | 1 Lab Tech |
| | 1 Biochem # |
| Weight – | 3320 lbs |
| Cube – | 500 ft³ |

# Biochem available as augmentee

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# FDPMU Status….

- ROC & POE signed Feb 2005 (OPNAVINST 3501.347)
- Universal Needs Statement (UNS) submitted in Jan 2005; Initial Capabilities Document (ICD)/ Joint Capabilities Document (JCD) in development
- POM-06 manning growth to 6 Active components and 2 Reserve components
- Six equipment sets funded with sustainment dollars through FY11
  - Sets 4 and 5 for FY05
  - Set 6 for FY06

***Way Ahead: Field 8 FDPMU teams***

*(6 Active, 2 Reserve)*

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# Mission Essential Task Lists – (METLs)

## Navy Training System Plan (NTSP)

- **Provides external funding for throughput pipeline training and quotas for critical courses**

## Unit Training Program

- **Individual Task List –detailed training requirements**
- **FPAE PAT rounds, quality control**
  - ✓ Validates PQS
- **Tactical competencies**
  - ✓ Combat Skills (Live Weapons Fire, Convoy Ops, Land Nav, Comms, NBC)
- **Internal Field Exercises**

## Operational Readiness Evaluation

- **External Validation**
  - ✓ PAT rounds included
- **Validates FDPMU training program**

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# Forward Deployable Preventive Medicine Unit

## FDPMU Request Process

1. Requesting commander recognizes capabilities beyond scope of existing organic assets to manage
2. Requesting commander submits RFF to Joint Staff requesting specific capabilities
3. Joint Staff validates request, forwards to Service HQ's
4. Service HQ's determine ability to provide support
5. Joint Staff reviews input, prepares recommendation to SECDEF
6. DEPORD signed by SECDEF, Joint Staff releases message
7. Additional means of deployment (not DEPORD but through tasking)
8. Naval commander (CFFC, COMPACFLT) directed to employ FDPMU issues formal activation order to CNO (N-931)
9. N-931 validates and in collaboration with BUMED, tasks NEHC to provide capability
10. NEHC coordinates with Field Activity to execute deployment

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# Ongoing Initiatives….

## *Naval Medical Logistics Command*

•Collaborating to address AMMAL and DMLSS life-cycle management support

## *Fleet Hospital Support Office*

•Partnering with FHSO to address FDPMU engineering, packaging, inventory management, and platform maintenance issues

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# Expeditionary Preventive Medicine (EPM) Points of Contact

- **Director**

  **(757) 953-0698 (DSN): 377**
  **(DSN): 377**

**Deputy Director**

**(757) 953-0691**

- **Training/Operations Officer**

  **(757) 953-0696 (DSN): 377**
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**Logistics Officer**

**(757) 953-0711**

- **CBRE Program Manager**

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**SIPRNET**

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